

EFFICACY REVIEW

Chemsico Insect Bait 16I

Date: May 3, 2005

EPA Reg. No. Chemsico Insect Bait 16I, EPA Reg. No. 9688-217

Chemical No.: 067710

DP Barcode: D313776

GLP: No

Formulation: Indoxacarb (0.016%) bait

Purpose: Submit efficacy data to support additional fire ant claims for homeowner use product.

MRID: 46451401. Efficacy of Chemsico Insect Bait 16I (EPA Reg. No. 9688-217), As a Broadcast and Mound Treatment Against Red Imported Fire Ants, *Solenopsis invicta* Buren. Data Requirement Guideline 158.640 Supplementary, Product Performance, Performing Laboratory- Pest Management International, Mayaguez, Puerto Rico; Sponsor United Industries Corp., Study Dates June 30 -July 22 and October 5-8, 2004.

Branch Supervisor: Meredith Laws, Branch Chief

Team Reviewer: Ann Hanger

Efficacy Reviewer: Joanne S. Edwards, M.S. Entomologist

Secondary Reviewer: Kable Davis, M.S. Entomologist

Joanne S. Edwards
5/3/05
Kable Davis
5-3-05

BACKGROUND:

See previous efficacy reviews dated August 31, 2004 (D301508) and November 16, 2004 (D308821). The proposed bait product contains 0.016% indoxacarb, and is registered for use as a homeowner product to control fire ants as individual mound (4 tablespoons per mound) and broadcast treatment at a rate of 0.5 lbs per 1,000 sq. ft.

The registrant seeks to add the following claims:

"Kills the queen and colony in 48 hours"

"24 hour Knockdown of Foraging Fire Ants"

"eliminates for an entire season" ("all season long", "lasts all season", "for three months")

"For new mound formation try our [Chemsico Insect Granules Formula L] to kill queen and colony in 24 hours."

"Re-apply in the Fall to reduce the number of Fire Ants that will return next Spring"

"Works immediately"

"Workers track the powder deep in the mound"

REVIEW OF DATA:

46451401. Efficacy of Chemsico Insect Bait 16I (EPA Reg. No. 9688-217), As a Broadcast and Mound Treatment Against Red Imported Fire Ants, *Solenopsis invicta* Buren. Data Requirement Guideline 158.640 Supplementary, Product Performance, Performing Laboratory- Pest Management International, Mayaguez, Puerto Rico; Sponsor United Industries Corp., Study Dates June 30 -July 22 and October 5-8, 2004.

Report consisted of two separate studies:

1. First Study- Broadcast treatment.

Three 2,500 sq. ft. plots in pastureland in Lajas Valley, Puerto Rico were treated with product applied broadcast at rate of 0.5 lbs per 1000 ft². Evaluations (old and new mounds) were made at 24 hr, 48 hr, 3 days, 7 days, 14 days and 21 days after application by gentle prodding of mounds. Control plots and commercial standard (fipronil) also tested (total of nine plots). At study initiation there were 16 live mounds in treated group, 15 in control and 21 in the fipronil group.

Results: At end of 48-hour period there were no active mounds in the treated group; only one mound became active in the control group throughout the study, and in the fipronil group, control in the plots stayed below 60% for entire study. No new mounds were observed during study period.

2. Second Study -Broadcast and Individual Mound Treatment.

a. Product was broadcast to three 1,000 sq. ft. plots in pastureland in Lajas Valley, Puerto Rico at a rate of 0.5 lbs per 1,000 sq. ft. Three plots left untreated for controls. Evaluations were made at 24 hr and 48 hrs after application. After 48-hour evaluation fire ant mounds were excavated. At study initiation there were 18 total active mounds in treated group and 12 active mounds in the control group.

b. Product was applied to five active mounds at 4 Tbs per mound. Evaluations were made at 24 hr and 48 hrs after application. After the 48-hour evaluation, fire ant mounds were excavated.

Results: For broadcast application, at the end of 48-hour period there were no active mounds in the treated group, and two mounds were active in the control group. For individual mound treatment, all five mounds were inactive at 48-hour period.

RECOMMENDATIONS

1. "Kills the queen"

There is no objection to "kills the queen" claims on the labeling. Although no data submitted, death of colony infers death of queen

2. "Kills the colony in 48 hours"

This claim is not supported by the data for the following reasons:

- The Dupont data (MRIDs 4502812 and 46189801) cited in support of this product registration does not support the claim. A cursory look at the results of the numerous data reports submitted by Dupont does not show all mounds dead within 48 hours.

- In MRID 46451401, too few mounds were tested. To support the control claim would require full set of data submitted following guidelines set forth under OPPTS 810.3100, with the only deviation from the testing being shorter duration of testing (although we would want to see observations for mound relocation to continue for 30 days).

3. "Provides"seasonal control"

"all season long"

"three-month control"

"for an entire season"

"Re-apply in the Fall to reduce the number of Fire Ants that will return next Spring"

The submitted/referenced data do not support the above claims. Efficacy data was asked for to support the claims in last efficacy review.

4. "For new mound formation try our [Chemsico Insect Granules Formula L] to kill queen and colony in 24 hours.

This claim is objectionable. What is the product, and is there efficacy data to support is for claim?

5. "24 hour Knockdown of Foraging Fire Ants"

This claim is acceptable, provided it is reworded to "24 hour knockdown of foraging ants which come in contact with the bait".

6. "Works immediately"

This claim is not supported by the submitted data. It was objected to in the last efficacy review.

7. "Workers track the powder deep into the mound"

This claim is not supported by the submitted data.

8. "Eliminates"

Claims for eradication and elimination are too broad and misleading.

[**Note to PM:** Regarding the statement "people and pets may re-enter...", defer to toxicologist.]